

## CLAIMS

1. A method for secure transmissions, the method comprising:
  - 2 determining a registration key specific to a participant in a transmission;  
determining a first key;
  - 4 encrypting the first key with the registration key;  
determining a second key;
  - 6 encrypting the second key with the first key; and  
updating the first and second keys.
2. The method as in claim 1, wherein updating further comprises:
  - 2 updating the first key according to a first time period; and  
updating the second key according to a second time period, wherein the
  - 4 second time period is less than the first time period.
3. The method as in claim 2, wherein updating further comprises:
  - 2 encrypting an updated first key with the registration key ; and  
encrypting an updated second key with the updated first key.
4. The method as in claim 2, further comprising:
  - 2 encrypting a broadcast stream of information using the second key; and  
transmitting the encrypted broadcast stream of information.
5. The method as in claim 4, wherein the broadcast stream of information
  - 2 comprises video information.
6. The method as in claim 4, wherein the broadcast stream of information
  - 2 comprises Internet Protocol packets.
7. The method as in claim 3, further comprising:
  - 2 calculating a registration key information message; and  
transmitting the registration key information message.

8. The method as in claim 7, further comprising:

- 2       calculating a first key information message corresponding to the updated  
          and encrypted first key; and
- 4       transmitting the first key information message.

9. The method as in claim 8, further comprising:

- 2       calculating a second key information message corresponding to the  
          updated and encrypted second key; and
- 4       transmitting the second key information message.

10. The method as in claim 1, further comprising:

- 2       transmitting the encrypted first key; and
- transmitting the encrypted second key.

11. A method for secure reception of a transmission, the method comprising:

- 2       receiving a registration key specific to a participant in a transmission;
- receiving a first key;
- 4       decrypting the first key with the registration key;
- receiving a second key;
- 6       decrypting the second key with the first key;
- receiving a broadcast stream of information; and
- 8       decrypting the broadcast stream of information using the second key.

12. The method as in claim 11, further comprising:

- 2       storing the first key in a secure memory storage unit; and
- storing the second key in a memory storage unit.

13. The method as in claim 11, further comprising:

- 2       recovering the first key from a first key information message; and
- recovering the second key from a second key information message.

14. The method as in claim 11, further comprising:

- 2       updating the first key according to a first time period; and
- updating the second key according to a second time period.

15. In a wireless communication system supporting a broadcast service option,  
2 an infrastructure element comprising:  
a receive circuitry;  
4 a user identification unit, operative to recover a short-time key for  
decrypting a broadcast message, comprising:  
6 processing unit operative to decrypt key information;  
memory storage unit for storing a registration key; and  
8 a mobile equipment unit adapted to apply the short-time key for  
decrypting the broadcast message.
16. The infrastructure element as in claim 15, wherein the short-time key is  
2 processed by the user identification unit and passed to the mobile equipment  
unit.
17. The infrastructure element as in claim 15, wherein the memory storage unit  
2 is a secure memory storage unit.
18. The infrastructure element as in claim 15, wherein the memory storage unit  
2 stores a broadcast access key, and wherein the processing unit decrypts the  
short-time key using the broadcast access key.
19. The infrastructure element as in claim 18, wherein the short-time key is  
2 updated at a first frequency.
20. The infrastructure element as in claim 19, wherein the broadcast access key  
2 is updated at a second frequency less than the first frequency.
21. The infrastructure element as in claim 15, wherein the broadcast service  
2 option is a video service.
22. A wireless communication system, comprising:  
2 means for determining a registration key specific to a participant in a  
transmission;

- 4 means for determining a first key;  
means for encrypting the first key with the registration key;
- 6 means for determining a second key;  
means for encrypting the second key with the first key; and
- 8 means for updating the first and second keys.

23. An infrastructure element, comprising:

- 2 means for receiving a registration key specific to a participant in a  
transmission;
- 4 means for receiving a first key;  
means for decrypting the first key with the registration key;
- 6 means for receiving a second key;  
means for decrypting the second key with the first key;
- 8 means for receiving a broadcast stream of information; and  
means for decrypting the broadcast stream of information using the
- 10 second key.

24. A digital signal storage device, comprising:

- 2 first set of instructions for receiving a registration key specific to a  
participant in a transmission;
- 4 second set of instructions for receiving a first key;  
third set of instructions for decrypting the first key with the registration
- 6 key;
- fourth set of instructions for receiving a second key;
- 8 fifth set of instructions for decrypting the second key with the first key;  
sixth set of instructions for receiving a broadcast stream of information;
- 10 and
- seventh set of instructions for decrypting the broadcast stream of
- 12 information using the second key.